

BOOK REVIEWS

PRINCIPLES OF MEDICAL STATISTICS. 7th ed. A. Bradford Hill. 367 pp. Illust. The Lancet Limited, London, 1961. 12s. 6d. net.

This is the seventh edition of a fine book which has now reached two editions in Spanish and one each in Russian and Korean. The author has tried to set down as simply as possible the statistical methods that experience has shown him to be the most helpful in the problems with which medical workers are concerned. The work is actually a re-issue in book form of a series of articles on medical statistics published in *The Lancet* in 1937, but now, of course, with many revisions and alterations. Three new chapters have been added to this recent edition, dealing with the elements of sampling, the carrying out of scientific investigations, and the problems of defining and measuring sickness.

There is repetition, but this is of definite value to the beginner, often horrified by equations and square roots. The author himself offers as an excuse the repetition in published papers of those elementary statistical errors which a very little knowledge of statistics would be sufficient to prevent.

This Journal has recognized the importance and the increasing use of statistics, and the student of medical statistics is also referred to a series of articles published earlier this year (*Canad. M. A. J.*, 84: 376, 431, 487, 545 and 591, 1961).

NEWER DIMENSIONS OF PATIENT CARE. Part I. The Use of the Physical and Social Environment of the General Hospital for Therapeutic Purposes. Esther Lucile Brown. 159 pp. Russell Sage Foundation, New York, 1961. \$2.00.

As the title suggests, this is the first of three books which will analyze the work of the modern hospital from a psychosocial point of view. It is one of the most stimulating and thought-provoking discussions on the meaning of patient care that the reviewer has seen. We are forcibly reminded that patients are primarily people in trouble. Some of their fears on going to a hospital are defined, fears not only about the unknown surroundings but also about their families, the position of complete dependency in which they now find themselves, and the enforced changes in patterns of living, for example, early meal hours and the question of bathroom privileges. The hospital role of a person is often a drastic change from his role in the family and community.

Dr. Brown goes on to describe the perceptions and expectations of patients in a hospital, the use of familiar objects, such as a clock, calendar, books and other things as measures of comfort. She discusses the importance of how all members of the staff act toward the patient from the very moment of reception, the role of visitors, and the gradual trend to more flexibility in visiting hours, particularly for children. She gives examples of hospitals where parents may stay with their children overnight. This may be important also to older people from other ethnic backgrounds who are unaccustomed to our pattern of hospital care.

One of the most interesting ideas is the role of the patient as a helper in the therapeutic process with other

patients. This, of course, has been developed to some extent in progressive patient care units and in rehabilitation units, but so far not in adult acute hospitals. The author points out that patients with backgrounds in nursing or medicine may find themselves in their accustomed surroundings but completely out of the picture for the first time in their lives. This is also true of others who just want to have something to keep them busy and occupied, such as writing letters for someone else, interpreting for foreign patients, and delivering mail.

The book is filled with many interesting direct comments from patients, nurses, doctors, and others, and it raises some fascinating questions in the reader's mind. One begins to realize that with the increasing complexity of modern medicine the hospital has become the laboratory or work place for the hospital staff rather than primarily a place for the care of patients. Many of the real social and emotional needs of patients are being ignored. Little is being done to alter the increasingly rigid and authoritarian basis on which large hospitals, in particular, are run today. This lively and provocative book is most heartily recommended to all doctors, nurses, and others who "think" they are caring for patients.

EXPERT COMMITTEE ON HEALTH STATISTICS. Seventh Report. World Health Organization Technical Report Series No. 218. 28 pp. World Health Organization, Geneva, 1961. \$0.30.

The major purpose of this report is to point out the ways in which national and local health administrations may supplement the routine collection of vital statistics by the use of survey techniques. The objectives, types, methodology, possible uses and limitations of morbidity and health surveys are discussed. Surveys may be simple for developing countries which lack trained staff, or they may be quite complex in design for developed countries which are able to process more extensive information. Three main types of survey may be used—the interview survey, the health examination survey, and the survey based on existing records. The value and limitations of each approach are presented. A particular section is devoted to the use of local health surveys and specific disease surveys in less developed areas.

The report goes on to discuss the development of international statistical classification of diseases, injuries, and the causes of death, its extension to more and more countries, and preparations for the eighth revision. Brief references are made to the U.N.-W.H.O. seminar on the use of vital and health statistics for genetic and radiation studies, the need for a bibliography on health survey methods, proposed studies of the better use of hospital statistics, the desirability of setting up national committees on vital and health statistics, and the continuation of a variety of W.H.O.-sponsored studies in the health statistics field. This report will be of special interest to those doing statistical work. The general discussion of survey techniques should be useful to anyone wishing to carry out disease or health surveys.

THERAPEUTIC EXERCISE. 2nd ed. Edited by Sidney Licht and Ernest W. Johnson. 959 pp. Illust. Elizabeth Licht, Publisher, New York, 1961. \$16.00.

The demand for a second edition of this text within three years of the publication of the first edition shows that it fills an essential need. Without doubt a book of this type is a valuable reference work for all medical libraries.

There is an excellent coverage of muscle structure, muscle physiology, the mechanics of posture, and exercises for all types of joints.

The division of the chapters into exercises for various diseases and injuries tends to make for some repetition, but on the other hand it is a great deal easier for reference purposes. This is a text that every physiatrist and physiotherapist should possess. It would be of value also to orthopedic surgeons and neurologists as a reference work.

There is an excellent discussion and summary of the uses of orthoptic training, which should enable the physician to answer questions frequently posed by patients.

The reviewer doubts whether all will agree with the statement that much of the disability in multiple sclerosis follows from disuse. However, the exercises suggested are undoubtedly helpful in this condition.

This second edition contains chapters on isometric exercises and gait retraining which were not offered in the first edition, except in a brief appendix.

MYXEDEMA. Jerry K. Aikawa. 106 pp. Charles C Thomas, Springfield, Ill., 1961. \$5.00.

In this little monograph Dr. Aikawa succeeds in capturing the imagination with his account of the development of medical knowledge concerning myxedema. While describing the "rare, brilliant flashes of intuition on the part of some and the dogged determination of others", he has at the same time condensed the vast body of medical knowledge concerning thyroid physiology so that the reader gains a real understanding of this important endocrine organ almost unconsciously.

As well as outlining the history from the time that King described the histology of the thyroid, and Gull first recognized myxedema as a clinical entity, he gives a good account of the effect of thyroid hormone on body tissue, the chemistry of thyroxin, the contribution of radioactive iodine to the study of thyroid disease, and the interrelationship between the thyroid and the pituitary glands.

It can be recommended to medical students and to practitioners wishing a concise review of some of the modern concepts of thyroid function. It will almost certainly, as the author hopes, result in motivating a few students of medicine "to join in the task of solving the many unanswered questions raised".

CONTROL OF SOIL-TRANSMITTED HELMINTHS. World Health Organization Public Papers No. 10. Paul C. Beaver. 44 pp. World Health Organization, Geneva; Columbia University Press, New York, 1961. \$0.60. Also published in French.

Among all the species of worms parasitic in man the soil-transmitted intestinal nematodes—the roundworm, the whipworm, and the hookworm—hold the distinction

of exerting the greatest influence on individual health and group productivity throughout the world, their prevalence in different communities serving indeed as an index of social and economic standing. Although they cause anemia, reduce physical and mental capacity, weaken resistance to other diseases, and at times affect health directly and severely, attempts at their control have met with disappointing results, and as a consequence they present a health problem that is apt to be given perfunctory attention or even neglected.

Professor Beaver discusses in this new WHO publication the factors involved in the control of these soil-transmitted helminths, the control methods that have been employed and should be employed, and the research problems that programs of control raise. A section is devoted to other miscellaneous helminths whose role in parasitic infections is still somewhat obscure. An annex deals with diagnostic methods.

KLINISCHE CHIRURGIE FÜR DIE PRAXIS. In vier Bänden. Band I, Lieferung 5. Edited by O. Diebold, H. Junghanns and L. Zukschwerdt. pp. 937-1087. Illust. Georg Thieme Verlag, Stuttgart, West Germany; Intercontinental Medical Book Corporation, New York, 1961. \$9.75.

In this final section of the first volume under the heading of malformations of the head and face, one finds a short and clear presentation on hare-lip, cleft palate and the diverse types of "dysostoses" and other minor or rare deformities. This monograph is a useful summary of borderline diseases belonging partly in the field of orthopedics and in regard to treatment usually requiring the help of a plastic surgeon.

The injuries of soft tissues and bones are the subjects of the second monographs, followed by the presentation on benign and malignant tumours affecting these tissues.

In the last chapter, under the heading of Diseases of the Neck, the "swellings" of this region are thoroughly covered. This is one of the most informative and useful contributions of this volume. The illustrations and references are well chosen, as in the previous sections.

MEDICAL DEPARTMENT, UNITED STATES ARMY. PREVENTIVE MEDICINE IN WORLD WAR II. VOL. V, COMMUNICABLE DISEASES Transmitted Through Contact or by Unknown Means. Edited by Colonel John Boyd Coates, Ebbe Curtis Hoff and Phebe M. Hoff. 530 pp. Illust. Office of the Surgeon General, Department of the Army, Washington, D.C., 1960. \$5.75.

A well documented and illustrated account of the problem and means taken to combat communicable diseases in the U.S. Army in World War II. Hepatitis furnished the most unexpected and perhaps the most serious problem of all the diseases discussed in the volume. A perusal of this volume indicates what happens to normal morbidity or sickness when war intervenes. The book would be most valuable if and when a similar situation returns to plague mankind.

MATHEMATICAL PRINCIPLES IN BIOLOGY AND THEIR APPLICATIONS. A Monograph in American Lectures in Living Chemistry. Nicholas Rashevsky. 128 pp. Charles C Thomas, Springfield, Ill., 1961. \$6.00.

This is a condensation, in relatively non-technical language, of some of the volumes on biomathematics for which the author is justly celebrated. Reading it is a

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stimulating adventure of the mind, but the brilliant imagination displayed is only slightly hampered by consideration of factual details. For example, dimensional analysis is used to predict that the width of the trunk of animals should depend on the $3/2$ power of its length. The logarithmic plot, showing that this may be true, includes "dog". One may well ask, what sort of dog, bulldog or dachshund? Perhaps it is a "mean" dog. The use of logarithmic scales in all the graphs obscures the real lack of agreement between fact and theory. In some places biophysical colleagues might challenge the basic principles and assumptions used. In the chapter on the heart and rate of heart-beat, the effect of size of heart on the mechanical advantage of the heart muscle tension (Laplace's law) appears to be ignored. Underlying the body of the book is the author's "Principle of Optimal Design". Biologists will denounce this as "teleology". Nevertheless it is most valuable to compare the theoretical optima with the facts of biology, but models can be most dangerous unless the purpose is to discover the important omissions and errors in the assumptions of the theory. Rashevsky triumphantly predicts the diameter of capillaries as 2.2 microns, and states that they are observed to be 4.4 microns, yet he started the chapter by stating that "Their diameter is essentially limited by the size of the red blood cells" (whose diameter is certainly more than 7 microns).

Part 3 of the book on the "Principles of Biological Epimorphism" is at a much more advanced level, and stimulating to the basic biological scientist, but demands much more competence in abstract ideas and terminology than the average M.D. would possess. This book is recommended for enjoyment and stimulus, but should be taken with many a pinch of salt. Its value to the reader depends on his being aroused to challenge rather than to accept uncritically Dr. Rashevsky's steps of logic. Physiologists, biochemists, biophysicists and physicists seem much more likely readers than those whose chief occupation is the practice of medicine.

ATLAS OF HUMAN ANATOMY. 3 Volumes. Ferenc Kiss and Janos Szentagothai. Publishing House of the Hungarian Academy of Sciences, Budapest, 1960.

The first Hungarian edition of this atlas of human anatomy was published between 1946 and 1951. This was followed by two revisions in Hungarian and by two German, one Russian and Bulgarian and one Chinese edition. The atlas appears to be well established and widely used in countries in the sphere of influence that includes Hungary. The 1960 edition of the atlas is the first in English. The authors are known internationally as productive investigators of a variety of anatomical subjects.

A conventional organization for atlases of gross anatomy is followed. Volume 1 deals with the skeleton, joints and muscles, Volume 2 with the viscera and Volume 3 with the nervous and vascular systems. The majority of the illustrations are in colour. There are included several three-dimensional drawings of the type that is more likely to be found in textbooks of histology, e.g., diagrams of the intestinal mucosa, hepatic and pulmonary lobules, cochlear duct, etc. Several drawings of cross-sections through the brain stem are included. The Basle anatomical nomencla-

ture is followed. The quality of paper and binding is excellent.

A great deal of meticulous work has obviously been put into this three-volume atlas. The material included is similar to that found in atlases of gross anatomy that are now used in Canadian medical schools. In general, the quality of the illustrations is not superior to that of atlases now used by our medical students. Thus, one would not expect the books by Kiss and Szentagothai to replace similar works now being used in this country. But the atlases from Hungary will no doubt continue to be valuable in medical education in countries where similar works are perhaps less favoured or less readily available.

SYMPTOM DIAGNOSIS. 5th ed. Wallace Mason Yater and William Francis Oliver. 1035 pp. Appleton-Century-Crofts, Inc., New York, 1961. \$15.00.

The word "symptom" in the title means both subjective and objective manifestations of disease, for it includes physical signs. The authors have provided a well-organized, exceedingly comprehensive guide to diagnostic possibilities. The book is designed for rapid reference: concise in style and abbreviated by cross-references. So much detail would overwhelm most undergraduate students but could help the doctor by suggesting possible diagnoses in difficult cases. Medical gamesmen will welcome the lengthy lists of eponyms at the back.

PHARMACOLOGY AND ORAL THERAPEUTICS. 12th ed. Edward C. Dobbs. 578 pp. Illust. The C. V. Mosby Company, St. Louis, Mo., 1961. \$10.00.

It is quite apparent that the author of this book is very conversant with the teaching of pharmacology to the students of dentistry and also with the problems of the practitioners in this field. The book touches succinctly on all subjects in pharmacology and tends to dwell on the fundamental tenets of the different areas. It is remarkably concise and yet almost sufficient in providing pertinent information on the subject as a whole. The general format of the book is pleasing to the eye. The arrangement of each chapter has been very cleverly executed with the help of different letter types. The language has a quality of simplicity that makes for easy reading. Historical notes add zest to the chapters.

In this edition the book has been brought quite up-to-date. The chapters have been rearranged so there is an excellent dovetailing of the materials in logical order. New categories have been included and new chapters added. Pharmacopeia of the United States (1960), National Formulary (1960), New and Non-official Drugs (1961), and Accepted Dental Remedies (1961) have been consulted. Recent ideas in the treatment of various maladies have been incorporated.

The book, however, is not entirely devoid of flaws. Chapter nine, for example, is entitled "Drugs Which Affect the Genitourinary System," but deals only with the urinary system. Occasionally a diagram appears lacking proper reference to the source. The bibliographies are often too few and insufficient. Apart from these few inadequacies, the book on the whole appears to be accurate.

It is recommended not only to students and practitioners in dentistry, but also to those who would like to revise and refresh their knowledge of pharmacology in a limited time.